

Amendments to the Claims:

Claim 1 (original): A lithium secondary battery comprising:

an electrode body having a positive electrode, a negative electrode, and a separator, the positive electrode and the negative electrode being wound or laminated by means of the separator, and

a nonaqueous electrolyte solution containing a lithium compound as an electrolyte;

characterized in that at least one of the positive electrode, the negative electrode, the separator, and the nonaqueous electrolyte solution contains at least one of:

(a) an organic and/or inorganic inhibitor, which functions as a Cu-corrosion inhibitor or a Cu-trapping agent,

(b) a compound having an organic base and an inorganic acid which are unitarily combined in a molecule,

(c) a cyclic compound containing a N-O radical in a molecular structure,

(d) a cyclic compound which becomes a Mn^{2+} supplier in the nonaqueous electrolyte solution,

(e) a compound containing an atom showing Lewis acidity and an atom showing Lewis basicity in one molecule molecular-structurally,

(f) a three-dimensional siloxane compound, and


(g) a nonionic surfactant; or

the nonaqueous electrolyte solution contains:

(h) a water-extracting agent, or

(i) a hydrofluoric acid-extracting agent.

Claim 2 (original): A lithium secondary battery according to claim 1, wherein a central element of a polar group of said organic inhibitor contains at least one selected from the group consisting of N, P and As in 5B group and O, S and Se in 6B group of the periodic table.

 Claim 3 (original): A lithium secondary battery according to claim 1, wherein said organic inhibitor is a sulfur compound.

Claim 4 (original): A lithium secondary battery according to claim 1, wherein said organic inhibitor is an imidazole-analogue organic compound.

Claim 5 (original): A lithium secondary battery according to claim 1, wherein said inorganic inhibitor is one selected from the group consisting of phosphates, chromates, iron, or ionic compounds, nitrites, and silicates.

Claim 6 (original): A lithium secondary battery according to claim 1, wherein said organic base of said compound (b) is a cyclic compound containing an electron-donating element.

Claim 7 (original): A lithium secondary battery according to claim 1, wherein said organic base of said compound (b) contains an electron-donating substituent.

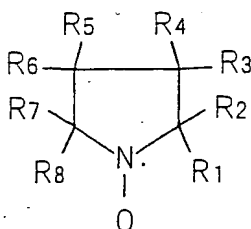
Claim 8 (original): A lithium secondary battery according to claim 1, wherein said inorganic acid of said compound (b) is a strong acid.

Claim 9 (original): A lithium secondary battery according to claim 1, wherein said inorganic acid of said compound (b) is hydrogen chloride or sulfuric acid.

Claim 10 (original): A lithium secondary battery according to claim 1, wherein said cyclic compound containing a N-O radical in a molecular structure is a compound having one ring.

Claim 11 (original): A lithium secondary battery according to claim 1, wherein said cyclic compound containing a N-O radical in a molecular structure is a compound having a molecular structure shown by the following general formula (I);

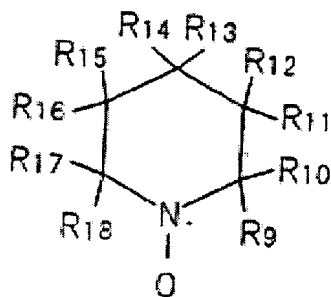
General formula (I):



(R₁ – R₈: a hydrogen radical, a hydrocarbon radical, or a cyano radical)

Claim 12 (previously presented): A lithium secondary battery according to claim 1, wherein said cyclic compound containing a N-O radical in a molecular structure is a compound having a molecular structure shown by the following general formula (II);

General formula (II):

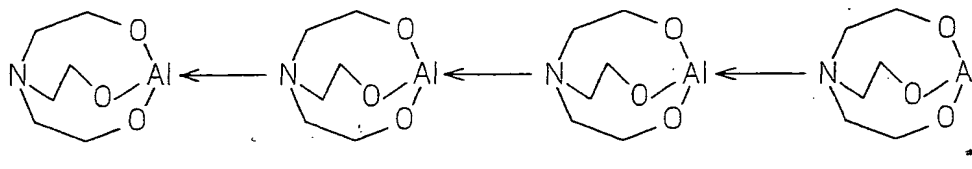
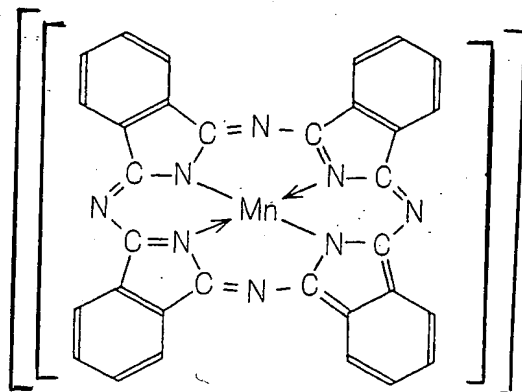


(R₉ – R₁₈: a hydrogen radical, a hydrocarbon radical, or a cyano radical)

Claim 13 (original): A lithium secondary battery according to claim 1, wherein said cyclic compound which becomes a Mn²⁺ supplier is manganese (II) phthalocyanine or a manganese (II) phthalocyanine derivative.

Claim 14 (currently amended): A lithium secondary battery according to claim 1, wherein said compound (e) is alumatrane tetramer shown by the following chemical formula (HH)(X)

Chemical formula (HH)(X)




Claim 15 (original): A lithium secondary battery according to claim 1, characterized in that said nonionic surfactant is a compound having an ether linkage.

Claim 16 (original): A lithium secondary battery according to claim 1, wherein said nonionic surfactant is represented by the general formula $R_1(OR_2)_nR_3R_4$ (n is an integer), the R_1 radical and the R_2 radical are groups mainly containing hydrogen (H) and/or carbon (C), the R_3 radical is a group of oxygen (O), nitrogen (N), or an ether linkage (OCO), with linking on the side of the R_2 radical, and the R_4 radical is not hydrogen (H) but a group mainly containing hydrogen (H) and carbon (C).

Claim 17 (original): A lithium secondary battery according to claim 1, wherein said lithium compound is lithium phosphate hexafluoride.

Claim 18 (original): A lithium secondary battery according to claim 1, wherein lithium manganate having a cubic spinel structure having lithium and manganese as main components is used as a positive active material.

 Claim 19 (original): A lithium secondary battery according to claim 1, wherein a carbonaceous material is used as a negative active material.

Claim 20 (original): A lithium secondary battery according to claim 1, wherein said water-extracting agent dissolves in said nonaqueous electrolyte solution.

Claim 21 (original): A lithium secondary battery according to claim 1, wherein said water-extracting agent is an organic phosphorous compound.

Claim 22 (original): A lithium secondary battery according to claim 1, wherein a hydrofluoric acid-extracting agent is added to said electrolyte solution.

Claim 23 (original): A lithium secondary battery according to claim 1, wherein said hydrofluoric acid-extracting agent is an organic silicon compound or an organic antimony compound.

Claim 24 (original): A lithium secondary battery according to claim 1, wherein said hydrofluoric acid-extracting agent is one capable of dissolving in said nonaqueous electrolyte solution.

Claim 25 (previously presented): A lithium secondary battery according to claim 1, wherein a capacity of the battery is 2Ah or more.

Claim 26 (previously presented): A lithium secondary battery according to claim 1, wherein the battery is for being mounted on a vehicle.

Claim 27 (original): A lithium secondary battery according to claim 26, wherein the battery is used for an electric vehicle or a hybrid electric vehicle.

Claim 28 (original): A lithium secondary battery according to claim 26, wherein the battery is used for starting of an engine.
